SWMOIC '06 Operational Dermatology Ages & Beyond

LCDR Will Lumbang
NMCSD-Dermatology
26 July 2006

What’s your diagnosis?

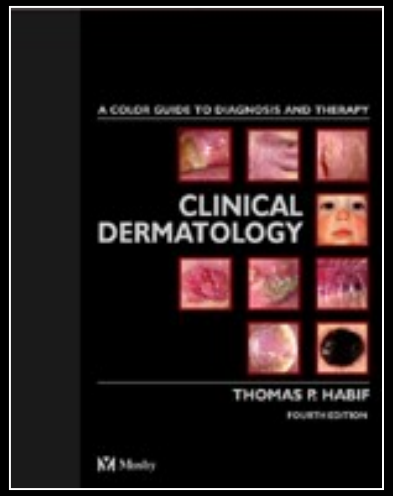
MELANOMA

Objectives

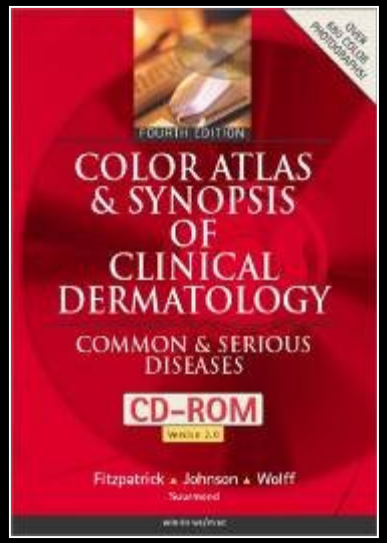
- Discuss common skin conditions
- Basic management
  - You as a primary care provider
  - Highlight patient education
  - Pitfalls & Mismanagement
- Recognize skin cancers
- When to refer to dermatology

Recommended References

- Clinical Dermatology, 4th ed
  - Thomas P. Habif
  - ISBN: 3323013198



- Color Atlas & Synopsis of Clinical Dermatology
  - Thomas B. Fitzpatrick, et al.
  - ISBN: 0071360387



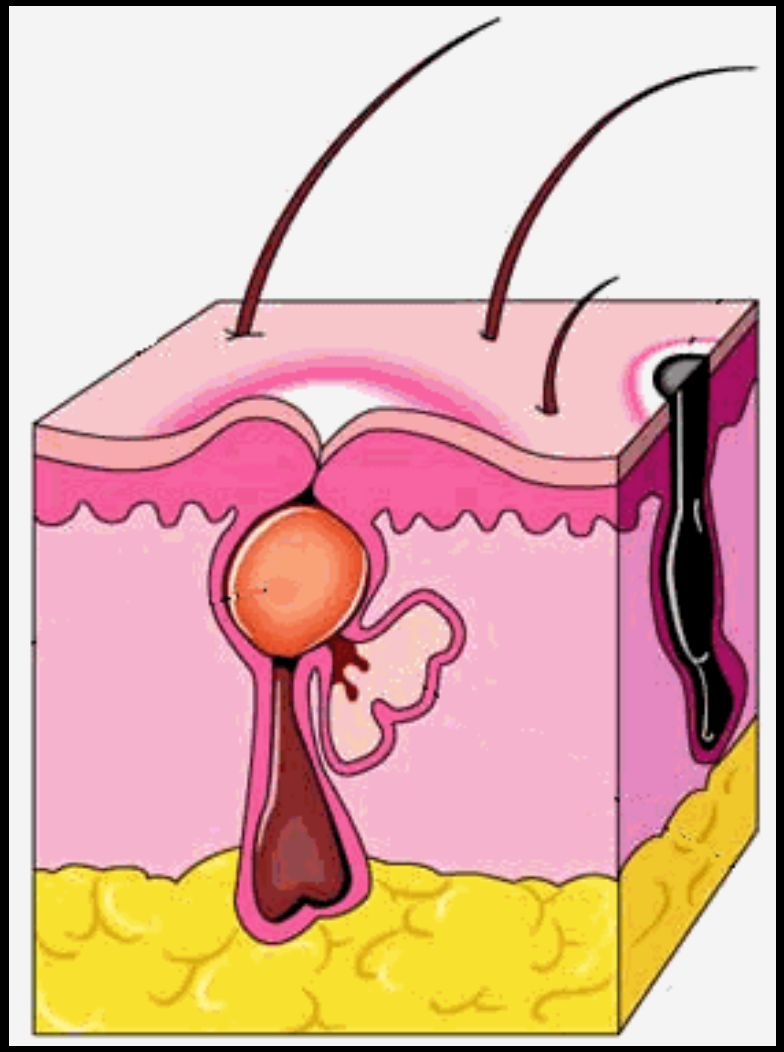
Acne

Acne

- Disease of the pilosebaceous units
- Hormonally influe
- Disfiguring

Acne Classification

- Comedonal
  - Non-inflammatory
  - Whiteheads
  - Blackheads
- Inflammatory
  - Red papules
  - Pustules
- Nodulocystic



Comedonal acne

Inflammatory acne – Mild

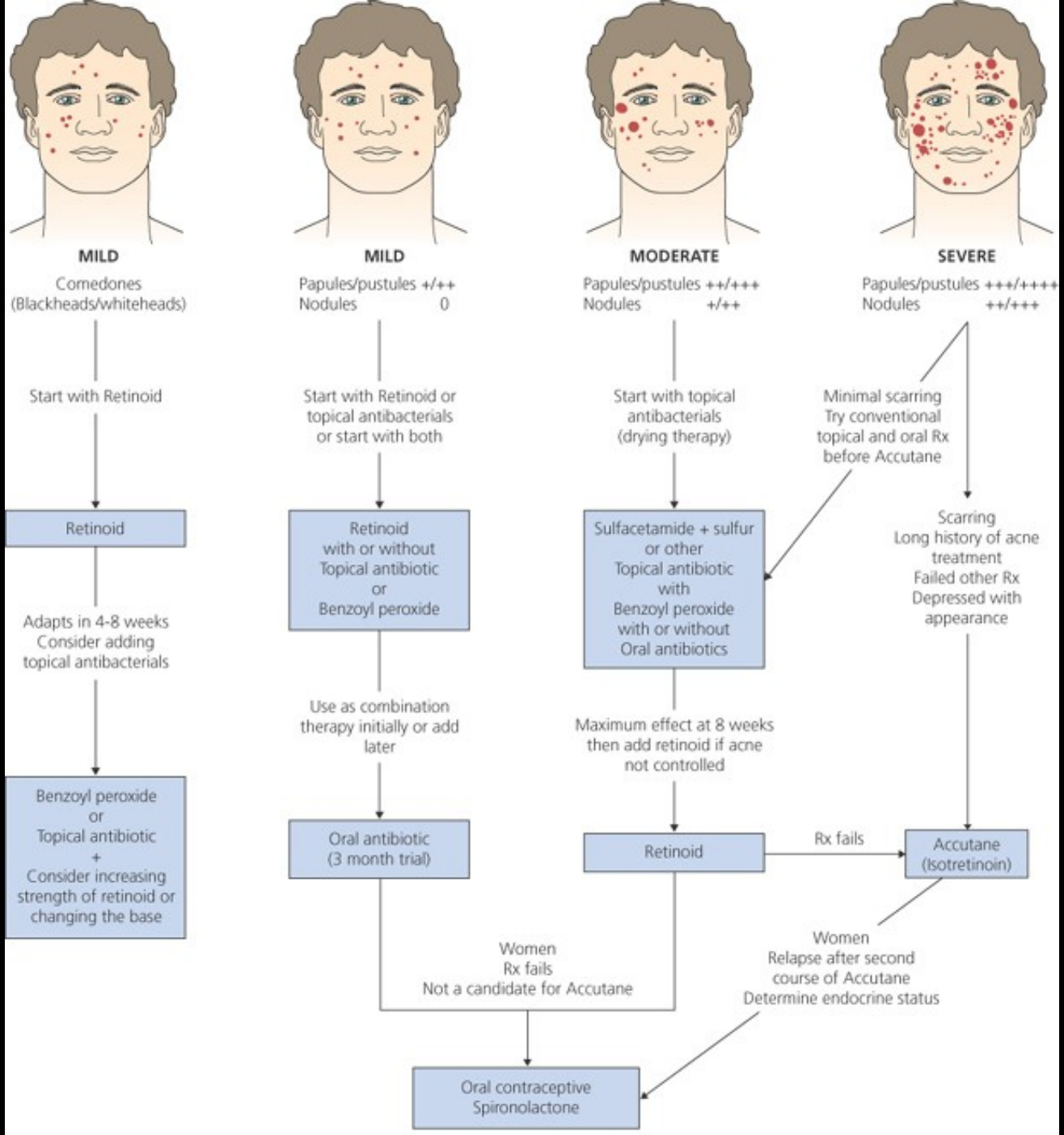
Inflammatory acne – Moderate

Nodulocystic acne

Other involved areas

Treatment

- Good **MILD** skin care
  - mild soaps
  - gentle washing
    - No facial scrubs – BAD, BAD, BAD
- Acne comes from within
  - Not from dirt
  - Not from foods



© Elsevier 2004. Habif: Clinical Dermatology 4E - www.clinderm.com

Comedonal Acne

- Start with **low dose retinoid**
  - Retin-A 0.05% cream
  - Switch to Retin-A micro 0.04%
    - after several weeks
    - or when adjusted
- Benzoyl peroxide 5% gel/wash
- +/- topical antibiotics
  - Cleocin T lotion or gel

Retinoids

- Reduces keratinocyte cohesion
  - Opens plugged pores
  - Prevents plugging
- Problems
  - Irritating
  - Photosensitizing

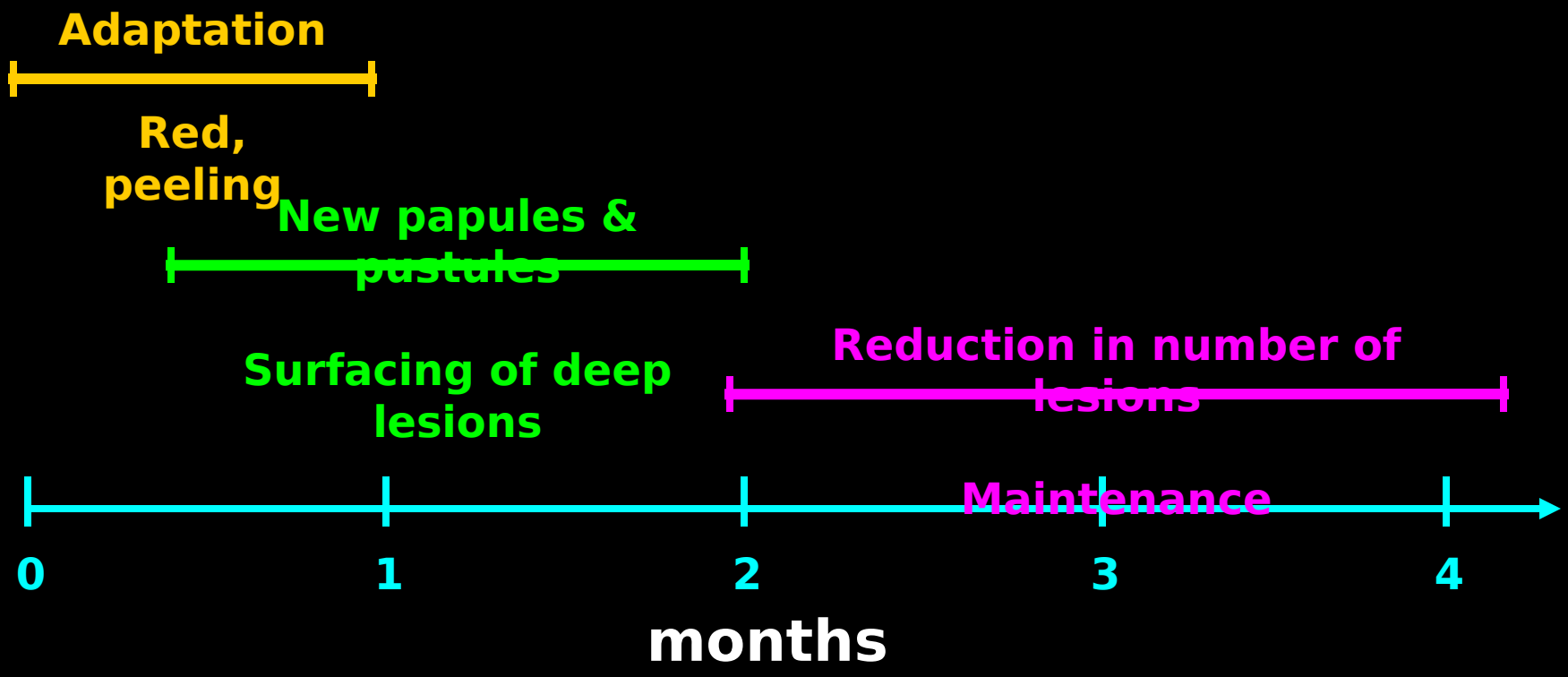
Retinoids

- ***To avoid irritation***:
  - Go easy in the beginning
    - Use lower strength to start (creams, low %)
    - Use 2 nights per week
    - Increase as tolerated to nightly use
  - Apply on very dry face
    - Wash face, then wait 15-20 minutes
  - Avoid moist areas
    - nasal folds, periorbit, oral commissures

Retinoids

- Apply only at night
  - Photosensitivity
  - Use mild non-comedogenic moisturizer in the morning with SPF 15-30

Response to Retinoids



Patient education

- Acne will get worse before it gets better
- **Should continue even though face clears**

Retinoids

- Retin A
  - Cream 0.025%, 0.05%, 0.1%
  - Gel 0.01%, 0.025%
  - Micro 0.04%, 0.1%
- Differin gel
- Tazorac
- This is ***KEY*** to long term acne tx!

Benzoyl Peroxide

- Antibacterial
- Minimizes bacterial resistance
- Mild peeling effect
- Bleaches colored cloth

- 5% wash or gel

Inflammatory acne – Mild

- Dry face with **topical antibiotics** first
  - Cleocin T gel/lotion x 2-3 weeks
- Introduce retinoids
  - Retin-A 0.05% cream
  - Switch to Retin-A micro 0.04%
    - after several weeks
    - or when adjusted
- Continue topical antibiotics
- Benzoyl peroxide 5% wash

Topical Antibiotics

- Clindamycin
  - Cleocin T gel or lotion
  - Combinations – Clinda + Benzoyl Peroxide
    - BenzaClin
    - Duac
- Erythromycin – high resistance
  - T-Stat, Erygel, Benzamycin
  - Discouraged

Inflammatory acne – mod to severe

- Pustules +/- some cysts, nodules
- Start with **oral antibiotics**
  - Doxycycline/Minocycline 100 BID
  - Maintain for about 3 months
- Benzoyl peroxide 5% wash
- When face calmed down:
  - Introduce & maintain retinoids
  - Decrease antibiotics or wean off
  - Switch to topical antibiotics
- Oral contraceptives for females

Oral Antibiotics

- Various mechanisms
  - Antibacterial action
  - Inhibit neutrophil chemotaxis
  - Reduces inflammation

- Many choices
  - Tetracyclines: TCN, Minocycline, ***Doxy***
  - Clindamycin
  - Bactrim

Tetracycline

- Cannot take with food, dairy products, antacids, iron
- Take 2 hrs after meal or 1 hr before
- Can irritate empty stomach
- 500mg BID
- May stain gums

Minocycline

- Can be taken with food
- Still affected by dairy products
- Expensive
- 50-100mg BID
- Side-effects:
  - Nausea & vomiting, vertigo, CNS problems, hyperpigmentation, lupus-like hypersensitivity reaction, hepatitis, livedo reticularis

Doxycycline

- As effective as minocycline
- Fewer side effects
  - photosensitivity 1%
- Cheap!
- Every clinic stocks it
- Can take with food
- 100mg BID

Other Oral Antibiotics

- Clindamycin – “poor man’s Accutane”
  - 300 mg PO BID
  - Pseudomembranous colitis
- Trimethoprim/Sulfamethoxazole
- Ampicillin
- Erythromycin – resistance
  - Highly discouraged

Oral Antibiotic Goals

- Gets acne under control
  - Use for 3-4 months
  - Taper dose slowly after clearance of inflammatory lesions
- Switch to topicals alone

Hormone modulator

- Suppress ovarian hypersecretion of androgens
- Spironolactone
  - Should probably be done by Dermatology
- Ortho Tri-Cyclen/Cyclen
- Yasmin
  - Very good
  - Monitor potassium
    - Can cause hyperkalemia
    - Do not mix with Spironolactone

Nodulocystic Acne

- Oral antibiotics
- Oral contraceptives if female
- Refer to Dermatology for Accutane
- Intralesional Kenalog (a drop of 2.5mg/cc to each nodule)

- *These patients should be managed by Dermatology*

Accutane

- Reserved for the worst form of acne
  - Nodulocystic
  - Severe inflammatory acne unresponsive to conventional therapy
    - Documented history of failed treatment

- Refer to Dermatology
  - New dispensing program: ***iPledge***
    - Easy to dispense to males
    - More cumbersome for females

Accutane – Prep your patients

- Be willing to put up with follow-ups
  - Monthly visits
  - Monthly labs prior to actual visit

- Start females on birth control – **2 forms**
  - Pills, IUD, Depo shot, etc…
  - Partners: condoms, vasectomy

- Be able to deal with side effects

Accutane Side Effects

- Dry skin, redness, cheilitis
- Dry eyes, epistaxis
- Hypertriglyceridemia/lipidemia
- Liver abnormalities
- Various cytopenias, elevated ESR
- Depression
- Hyperostosis

Acne Summary

- Be patient – controllable, ***NOT curable***
- Stick with one regimen x 3 months at least
  - Many different combinations available
  - Make sure of compliance
- 75% clearance is a good result
- Torso much harder to clear

Contact dermatitis

© Elsevier 2004. Habif: Clinical Dermatology 4E - www.clinderm.com

© Elsevier 2004. Habif: Clinical Dermatology 4E - www.clinderm.com

93 1 29

Contact Dermatitis

- Mild non-blistering lesions
  - Short course of potent steroids on small areas
    - Clobetasol/Lidex BID x 10-14 days
  - Identify and avoid culprit
  - Oral antihistamines if itchy

Contact Dermatitis

- Blistering and weeping lesions
  - Decompress, but DO NOT peel large vesicles
  - Domeboro soaks/Cool compresses

- Use systemic steroids if severe:
  - Oral Prednisone taper !!!!
    - 60mg qAM X 5days, 40 mg qAM X 5days, 20mg qAM X 5days
  - Short taper leads to rebound

Eczema

Eczema

- A “garbage” term, but we use it because people have heard of it

- Many different appearances, but similar pathogenesis and treatment

Atopic dermatitis

S. Alergología. Hospital de León
Leon, Spain

Nummular Eczema

Nummular Eczema

Hand Eczema

Lichen Simplex Chronicus

Factors That Provoke Itching

- Dryness of the skin
- Sweating, excessive heat, cool air
- Wool clothing, synthetic fibers
- Stress
- Contact allergens
- Food allergy (minority of patients)

3 Pillars of Eczema Tx

- **Emollients**
- Anti-histamines
- Topical Steroids

Start with Good Skin Care

- Avoiding drying soaps
  - Dove unscented bar soaps
  - No bottled soaps
  - Use soap only on areas that need true cleansing (neck, axilla, groin)
- Avoiding anything that smells too good
  - Perfumes, designer lotions/creams
- ***Aggressive*** use of emollients

Emollients

- Apply immediately after shower
  - Aquaphor/Baby Oil
- Use something at least TID-QID
- Ointments/Creams – preferred!!
  - Greasier, better hydrators
- Lotions – discouraged
  - easier to apply, but less protection

Emollients

- Ointments
  - Aquaphor, Vaseline
- Creams
  - Vanicream, Cetaphil, Moisturel
- Other
  - Vegetable shortening, mineral oil

Topical Steroids

- Don’t be steroid shy, but don’t go crazy
- Ointments are better
- Creams are more drying, irritating, sensitizing
- Forget about cosmetic elegance...

Steroid Strategy

- Severe eczematous dermatitis
  - Start with short course of strong steroids
    - Lidex 0.05% ointment
    - Cyclocort 0.1% ointment
    - Triamcinolone 0.1% ointment
  - Use BID Monday to Friday, not weekends
  - Do not use on face, axilla, groin

Steroid Strategy

- Facial dermatitis or intertriginous skin
  - Use Class 6 or 7 ointments/creams for a good period of time
    - Desonide 0.05% cream
    - Hydrocortisone 1.0 or 2.5% cream/ointment
  - You should still watch for signs of steroid complications

Cutaneous Side Effects

- Atrophy, striae, wrinkling
- Erythema, burning, stinging
- Pigment alteration
- Telangiectases
- Acne, folliculitis
- Perioral dermatitis

Steroid Overuse

Perioral Dermatitis due to Steroid overuse on face

Antihistamines

- Itch - Scratch - Rash cycle
  - rash worsens with scratching

- Proper use:
  - Atarax 25-50 mg po TID if severe itching
  - Combo therapy:
    - Sedating: Atarax 25-50 mg po qHS
    - Non-sedating: Zyrtec, Claritin, Allegra qAM

Antibiotics

- Almost all atopics colonized with Staph

- Impetigo
  - juicy, honey-colored crusting
  - Topical abx if mild
  - Oral (Diclox, Keflex) if severe

Set Reasonable Expectations

- *Prevention, **NOT** cure is the goal*
- Inherited disorder, not contagious
- Personal/family history of atopy
  - eczema, hay fever, asthma
- Need to learn to adapt to changing environment
  - Patient moving to SD from humid places
- Will wax/wane, even with good care

Molluscum

Molluscum

- 1-5 mm flesh-colored, dome-shaped, umbilicated papules
- Pox virus

Clinical Findings

- Spread by physical contact
  - Common in kids
  - STD in adults
- Autoinoculation
- Face, torso
- Severe in eczema patients

Molluscum Treatment

- Cryosurgery
- Salicylic Acid
- Aldara
- Curettage
- Tretinoin

Pityriasis rosea

Pityriasis Rosea

- Salmon-colored plaques with “trailing collarette” of scale
- “Christmas tree” distribution on trunk
- Starts with **herald patch**, then smaller papules/plaques develop
- ?Viral etiology
- May be pruritic
- Important DDx: ***syphilis***
  - √ RPR

PR – Treatment

- If pruritic:
  - Mild topical steroid
  - Oral antistamines for pruritus
- Limited sun exposure helps clear lesions
- Oral erythromycin
  - success in one study in patients with PR over 2 years of age

Psoriasis

Mild to Moderate Psoriasis

Mild to Moderate Psoriasis

- Dovonex® (Calcipotriene) 0.005% ointment
  - synthetic analog of vitamin D
  - slows skin cell growth, flattens plaques, removes scale
  - apply thin QD/BID and rub in gently
  - Max dose 100 g/week

- High potency topical steroids
  - Clobetasol 0.05% or Lidex 0.05% ointment
  - Apply BID Monday to Thursday
  - Decrease as plaques thinned

- Light therapy (UVB, UVA) – refer to derm

Severe Psoriasis

- Refer to dermatology
- Light therapy
- Systemic
  - Retinoids (Acitretin)
  - Methotrexate, Cyclosporine
- Biologics
  - Regulates immune system
  - Iinjectables, need refrigeration
  - They allow sailors to deploy & remain on ships

Psoriasis treated with Remicade

Guttate Psoriasis

- May be related to URI (Strep infection)
  - Oral antibiotics x 2 weeks
- Responds best to NB-UVB light therapy

Patient education

- No permanent cure
- Controllable if compliant with medication

Scabies

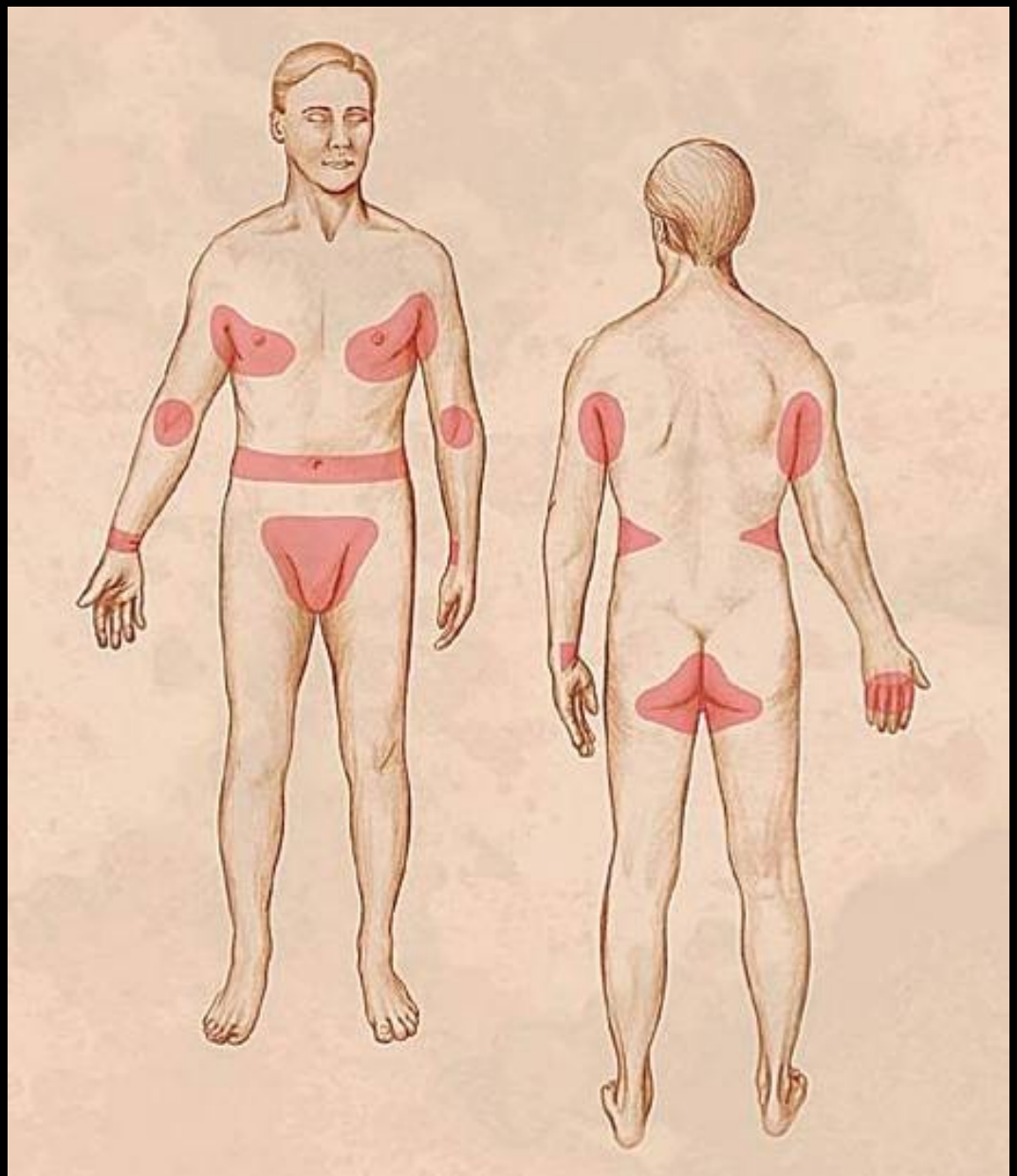
Scabies

- Infestation ***Sarcoptes scabiei***
- Spreads by intimate contact
  - close skin to skin contact
  - sexually transmission
  - fomites
- Female mites burrow in to skin & lay eggs
- Live for about 30 days
- Eggs hatch in 3-4 days

Clinical Manifestations

- Takes about 1 month to show a rash following initial infestation
- Host becomes becomes sensitized to mites
- ***Pruritus*** is the chief symptom

Favored sites



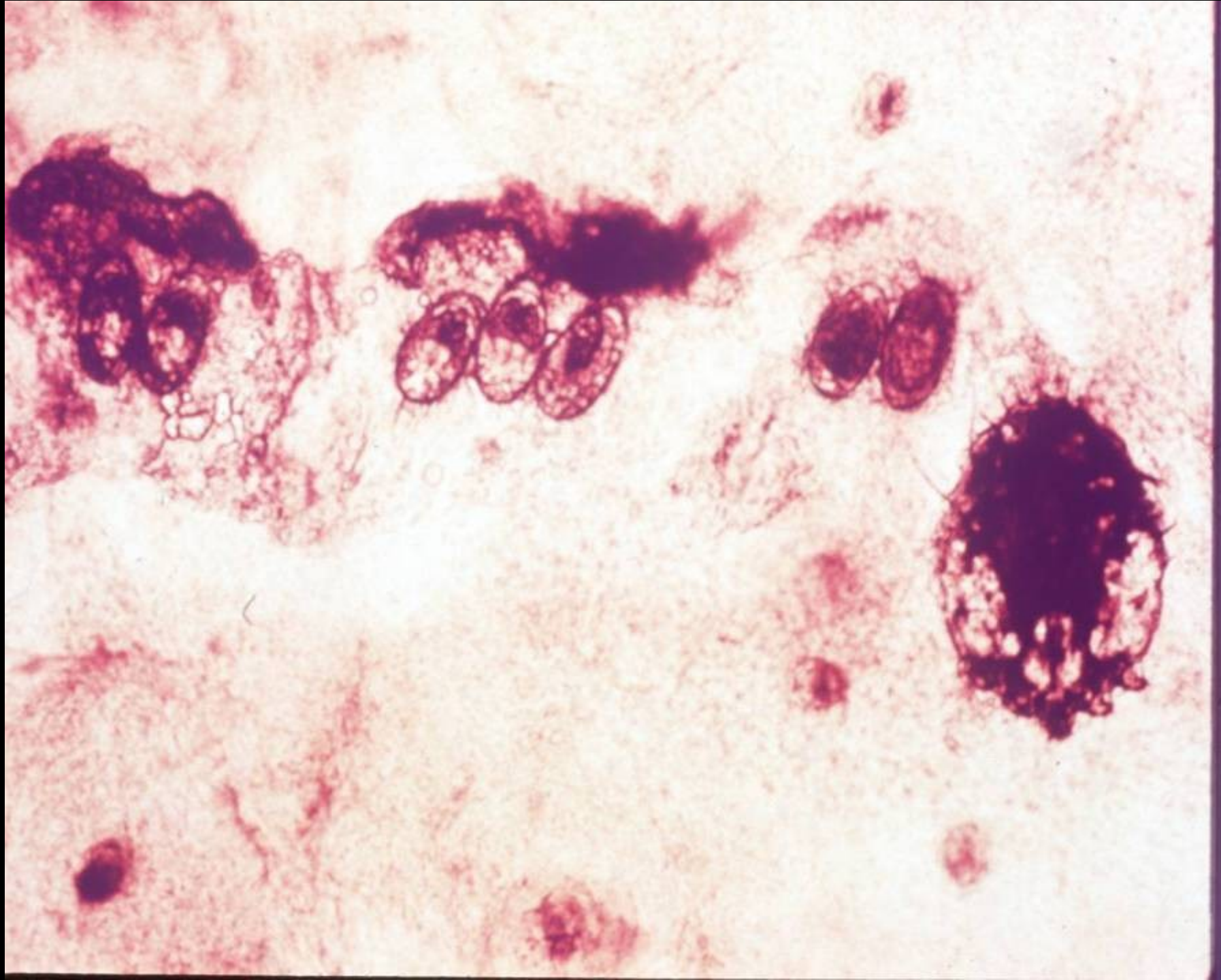
If you suspect scabies, you have to look at the groin...

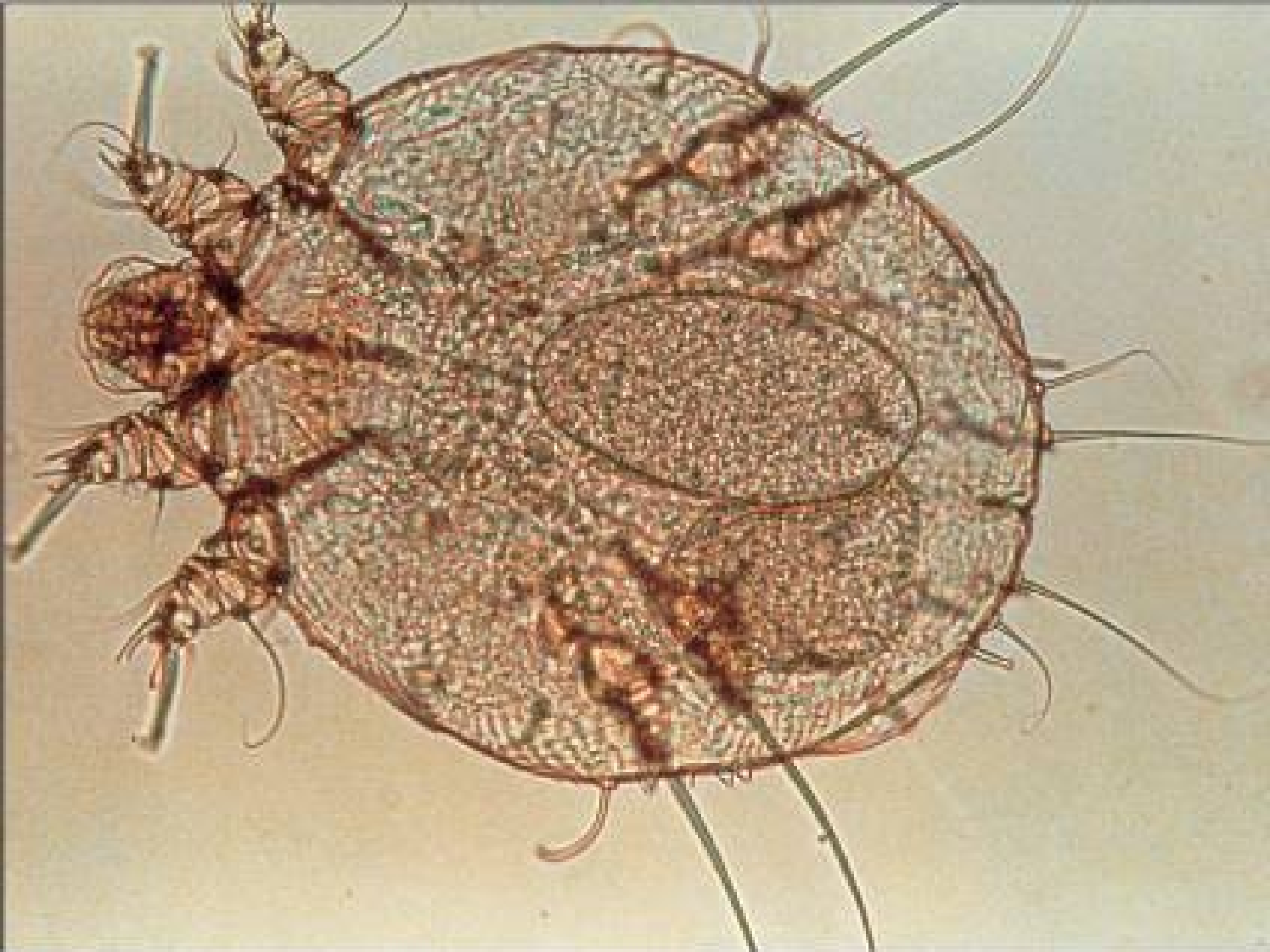
Diagnosis

- History
- Typical distribution of lesions
- Oil prep of skin scrappings
  - Mites
  - Eggs
  - Scybala (fecal pellets)

Scabies Prep

- Put a drop of mineral oil on slide
- Take #15 blade, dip into oil
- Scrape suspicious lesions
  - Fresh nodules, crusted papules, burrows
- Oil helps flakes stick to blade
- Wipe goo on slide, scrape again
- Put on coverslip and look under scope





Scabies Treatment

- Permethrin 5% cream (Elimite)
  - Apply from neck to soles
  - Leave on 8-12 hours
  - Repeat in one week
  - Treat close intimate contacts

- Ivermectin 200ug/kg (~15 mg po) x 1
  - Repeat in one week

Treatment

- Topical antipruritic agents
  - Calamine lotion
  - Sarna
- Oral antihistamines
  - Atarax
  - Zyrtec, Claritin, Allegra

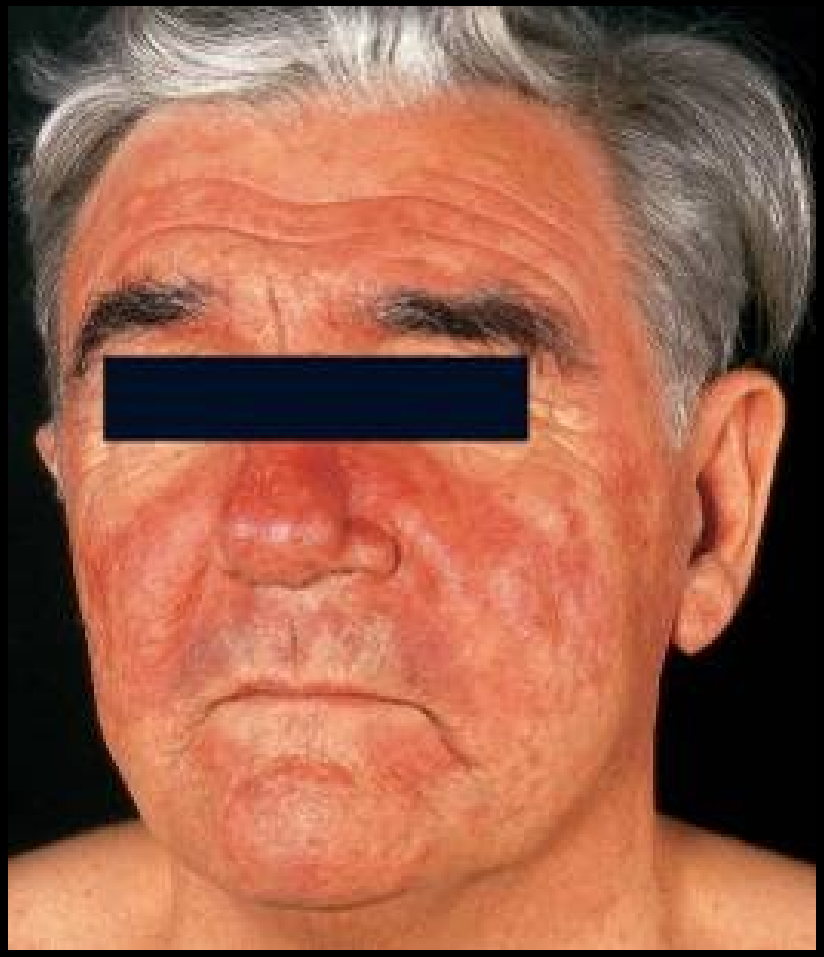
Post-Scabietic Pruritus

- Persistence of itching despite treatment
- Due to hypersensitivity from remaining dead mites and mite products
- May last up to 4 weeks
- Be mindful of treatment failure
  - Due to improperly administered medication and inadequate education

Important part of Treatment

- Mites die if off the human body for 1 week
- Wash beddings and used clothes and do not use for at least 7-10 days
- Clean beds and floors with routine cleaning agents just before scabicide is removed.

Seborrheic dermatitis



Seborrheic Dermatitis

- Greasy flaky scales
  - Scalp
  - “T” of the face
    - Eyebrows
    - Paranasal
    - Mustache
    - Chin
  - Mid-chest
  - Mid-upper back

Seb Derm – Scalp Tx

- T-Gel, Tar, Ketoconazole shampoo
  - Apply on moist scalp x 15 min
  - Wash off with regular shampoo
  - Use daily initially
  - Then 2-3 times for prevention

- Topical steroids – if scales are thick
  - Dermasmoothe FS oil apply prior to going to bed and wear shower cap
  - Kenalog spray QD-BID
  - Synalar solution

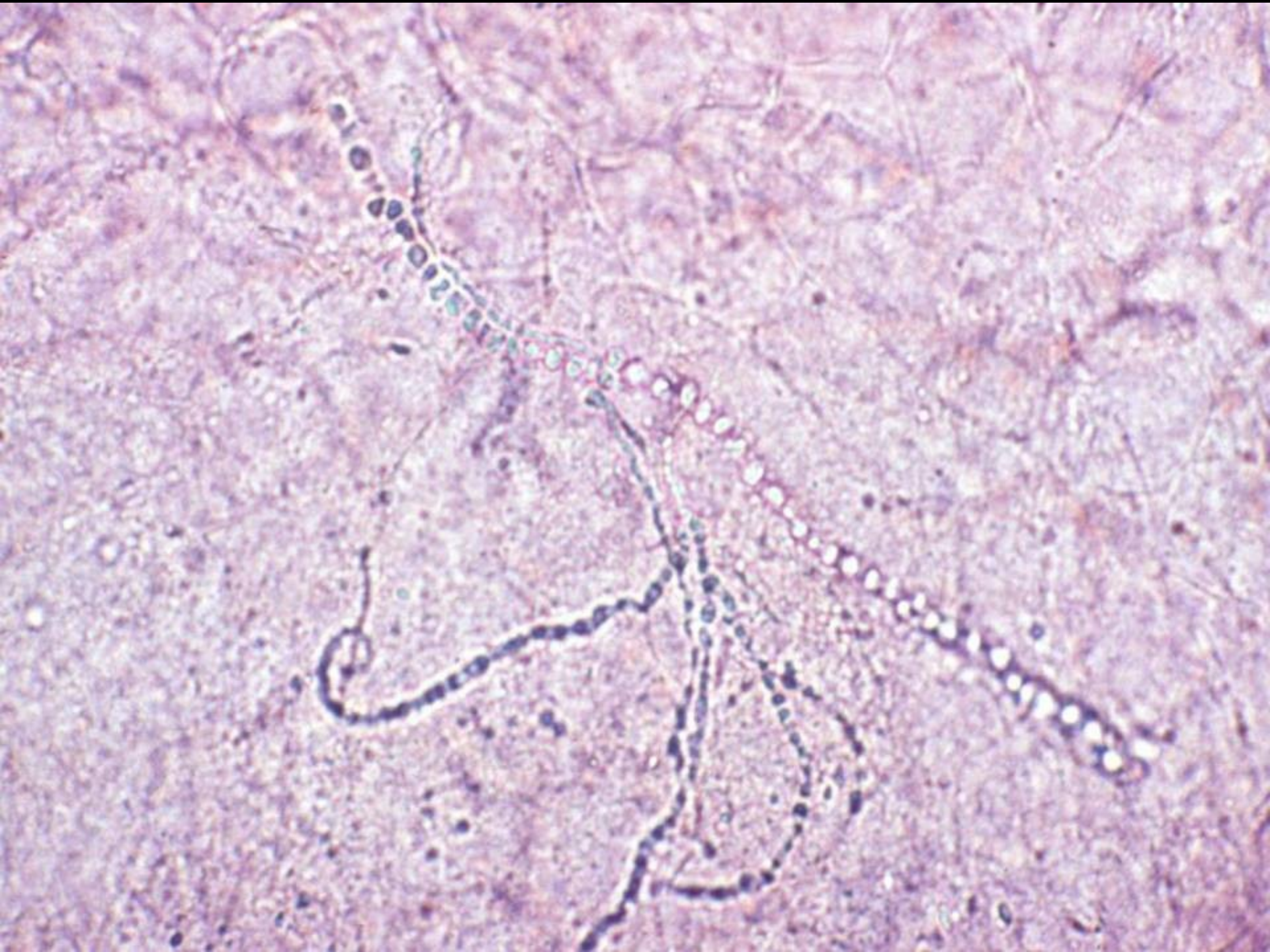
Seb Derm – Facial Tx

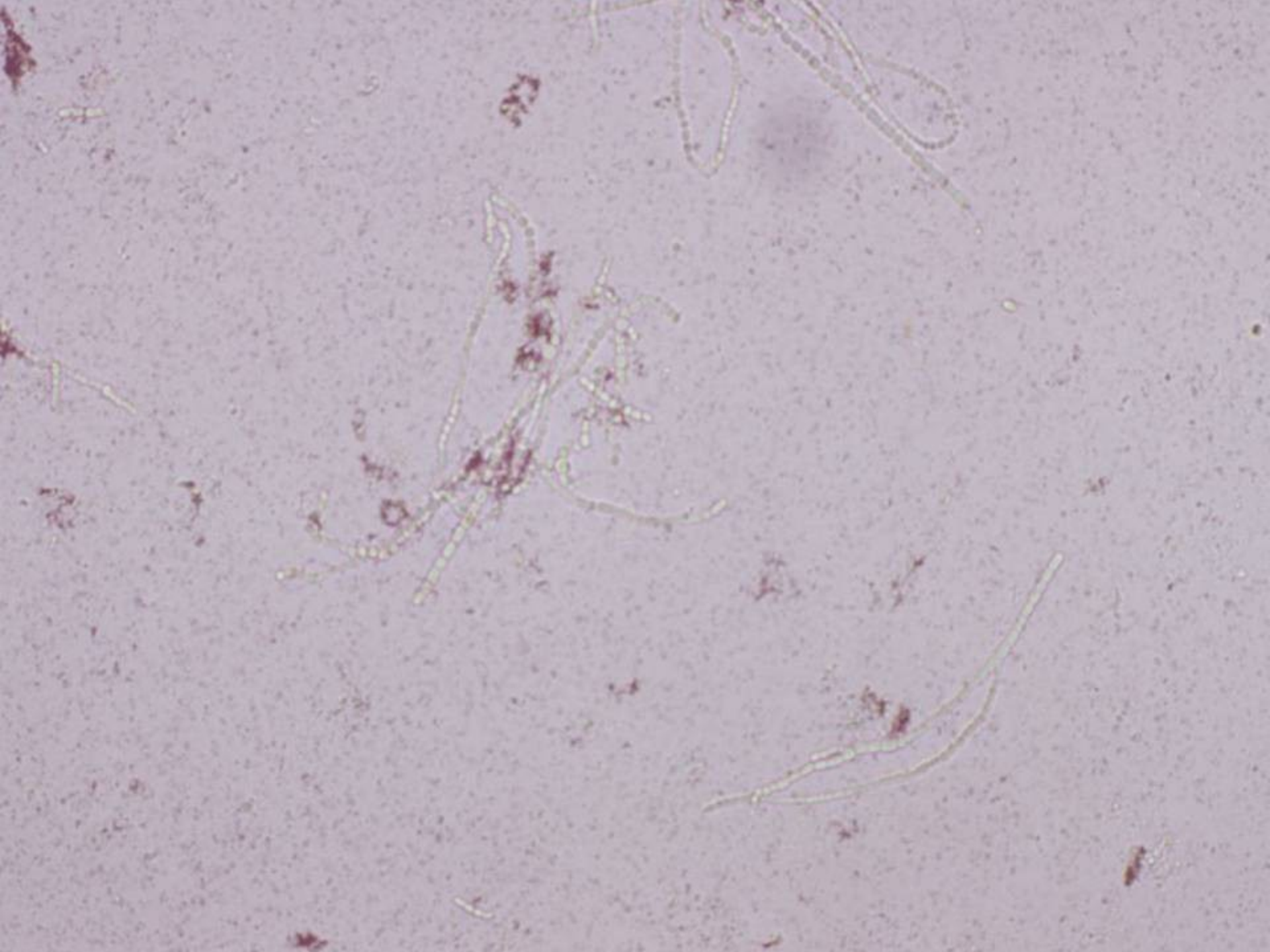
- Start with a low dose steroid
  - Desonide 0.05% lotion/cream AAA BID x 10-14 days max
- Maintenance treatment
  - Triple Cream AAA qd, then 2-3x/week
    - Salicylic Acid 2% + Sulfur 3% + HC 0.5% Cream
  - Ketoconazole shampoo AAA 10-15 min then wash off, 2-3x/week

Tinea

Tinea

- Simple lab tests:
  - KOH prep (if you have a microscope)
    - Scrape leading edge with #15 blade
    - Drop of KOH with cover slip
    - Wait for a few minutes or gently heat slide
    - Look for branching hyphae
  - Fungal Culture
    - Get a culture swab, wet with sterile water
    - Rub on scaly areas vigorously
    - Send to lab in a sterile cup (not in a culture medium)





Bullous Tinea

Tinea

- Topical therapy
  - Lamisil, Miconazole, etc…
    - Spectazole recently removed from formulary
  - Treat about ½” beyond edge of rash
  - Treat until clear, then 1-2 more weeks
  - Antifungal powders to shoes QD forever

Mycolog…
12 years later

When to give oral antifungal…

- Hair-bearing areas
  - Tinea capitis, Majocchi's granuloma, some palms/soles, and nail involvement
- Bullous tinea (palms/feet)
  - Lamisil 250 mg po qd x 2 weeks
- Onychomycosis (nails)
    - Treat for 4-6 months

Tinea: oral medication

- All have some degree of hepatotoxicity
  - Check LFTs for prolonged use
  - Avoid other hepatotoxin
    - EtOH, Tylenol, supplements, etc...
- May interfere with other meds
- Take Griseo with fat, Itraconazole with food, Terbinafine, Fluconazole with or without food

Pointers for Tinea Pedis

- Antifungal foot powder daily on feet and in shoes
- Alternate shoes/boots
  - Allows shoes to dry up
- Change socks frequently
- Make sure nails are not infected

Onychomycosis

Onychomycosis

- Prove it’s fungus
  - KOH
    - Just like KOH scraping for tinea
    - Takes long to dissolve nail material
  - Culture
    - Cut a piece of nail and send for “fungal culture”
    - Wait for 4-6 weeks to get results
  - PAS staining of nail plate
    - Cut a piece of nail
    - Send for “Tissue Exam” – r/o onychomycosis

Onychomycosis

- Only 50% dystrophic nails have fungus

- Do ***LFT's*** before and while on oral antifungal
  - Co-existing liver pathologies?
  - Other medications that affect the liver?
    - Cholesterol medication
  - Heavy drinker?

Onychomycosis

- ***Terbinafine***
  - Fingernails: 1 tab PO QD X 6 wks
  - Toenails: 1 tab PO QD X 12 wks
  - Pulse Therapy: 1 tab PO BID X 1 week/mo, repeated X 3-4 mo

- Fluconazole
  - 1 tab PO Q week X 12 -16 weeks or longer

- Itraconazole
  - 2 tab PO BID X 1 week/mo, repeated X 3-4 mo

Onychomycosis

- Topicals: Very safe, but ineffective
  - Fungoid Tincture
  - PenLac

- **Nails grow very slowly**
  - 6-9 mos fingernails
  - 12-18 months for toenails

Tinea Versicolor

Tinea Versicolor

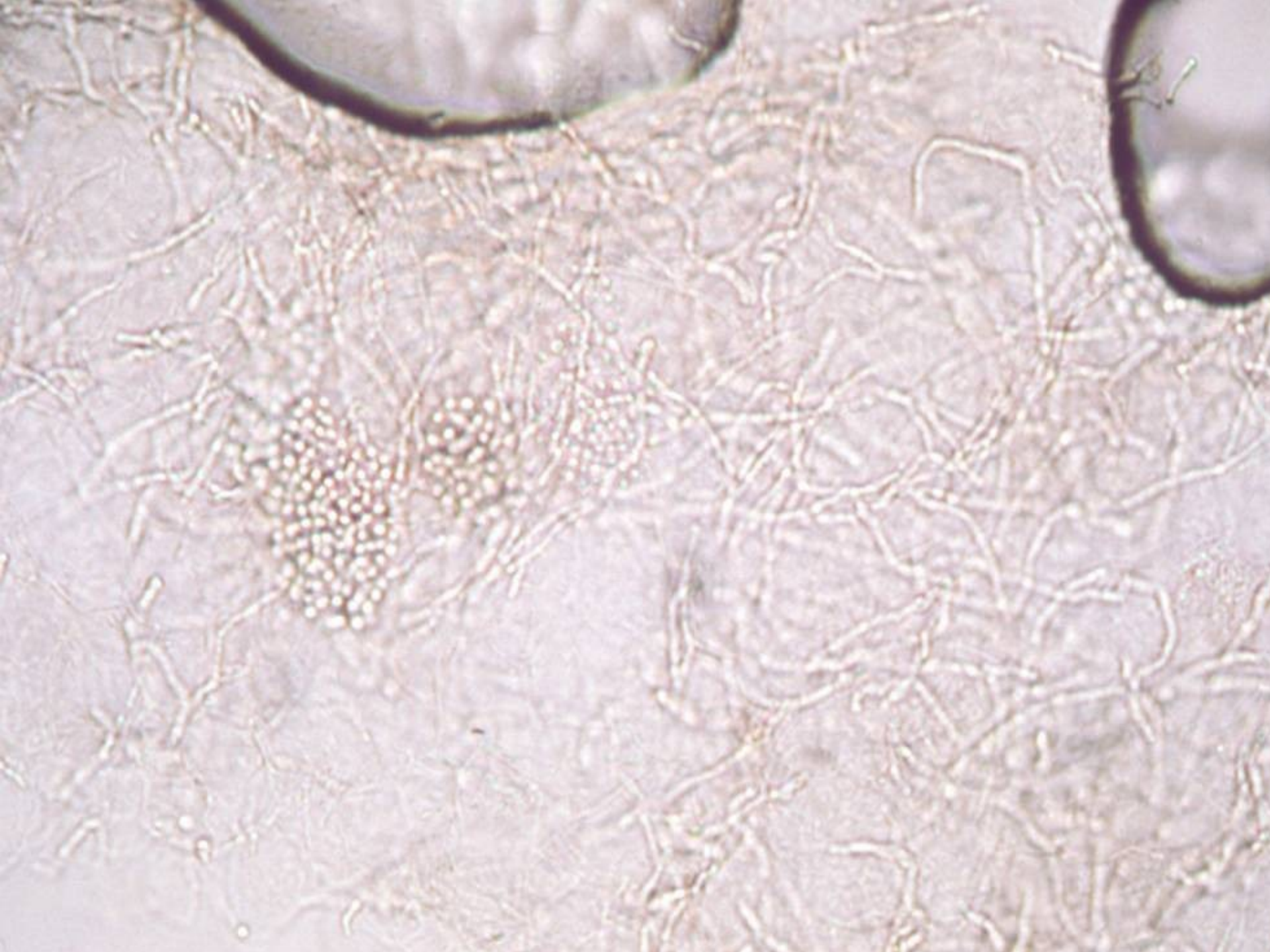
- Organism: *Malassezia furfur*
- Yeast cells with stubby hyphae
  - Spaghetti and meatballs
- Common in the tropics (likes sweat and oily surfaces)
- On weight benches in every gym

Tinea Versicolor

- Some people are more susceptible
- Secrete azeleic acid
  - interferes with melanin formation
  - can be hyper- or hypopigmented
  - even when treated, discoloration stays for a long time

© Edward Marcuse, MD

'00 9 12



TV Treatment

- Topical
  - Selenium sulfide
  - Ketoconazole shampoo
  - Antifungal creams

- Systemic
  - Ketoconazole 400 mg x1
    - Take with OJ/soda
    - Workout, leave sweat on skin overnight
    - Repeat one week later
    - Rare, but potential fulminant hepatotoxicity
  - Itraconazole 200mg/d for 5 days

More TV Treatment

- Apply Selsun from scalp to knees
- Let sit for 10 min, rinse
- Do everyday for 1-2 weeks
- Maintenance:
  - 2-3 times per week
  - scheduled treatments – “payday routine”
- New spots = reinfected

Urticaria

Urticaria

- Acute (<6 wks)
- Look for precipitating cause
  - Drugs
    - OTC
    - Vitamins
    - Vaccinations
    - Supplements
  - Food
  - Infection
    - feet (tinea)
    - vaginal candidiasis
    - dental

93 9 3

Urticaria

- Suppress with antihistamines & hope it goes away
- Atarax
- Non-sedating (Zyrtec, Claritin,Allegra)
- Periactin

Urticaria

- Chronic: (>6 weeks)

∀⇑ incidence in some ethnic groups

- Same treatments
- Look for some sign of infection, malignancy, etc... (usually find none)
- If individual lesion persists for >24 hrs, could be urticarial vasculitis → refer to dermatology

Warts

Filiform wart

Periungual wart destroying nail matrix

Flat Warts

© Elsevier 2004. Habif: Clinical Dermatology 4E - www.clinderm.com

Verruca Plana

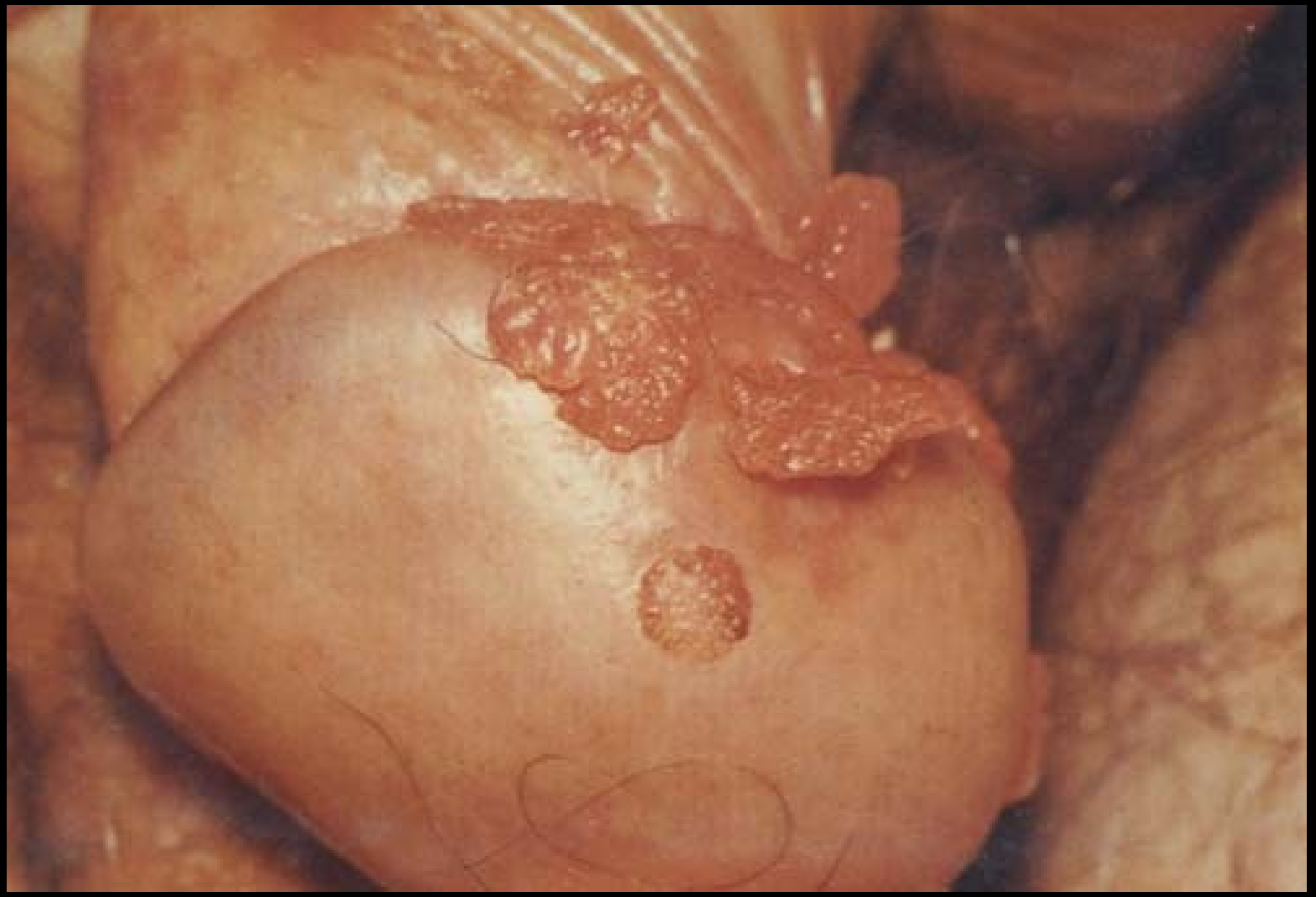
- Flat warts
- Usually on face
- 2-5mm smooth papules
- Spread by shaving
- May be hundreds

Verruca Plantaris

- On plantar areas of feet – no skin lines
- Tend to be flattened by pressure
- Often painful
- Can cluster in a “mosaic wart”
- May need to distinguish from corns

Condyloma Acuminata

- “Genital warts”
- Often from sexual contact
- Need to consider sexual abuse if on a child; vertical transmission possible
- May be large and polypoid
- Need STD workup – transmissible even if not visually present
- Dangerous to women
  - Annual PAP’s



Treatment Considerations

- No one treatment is effective
- Recurrence is the rule
- Latency – may occur years after transmission
- Pt’s age – more common in younger

Treatment Considerations

- You **must** do combination treatment
  - Salicyclic acid home therapy
  - Cryotherapy every 3-4 weeks

Home therapy – Sal Acid

- Salicylic acid is a keratolytic
  - Duofilm 17%
  - Mediplast 40%
- Soak in warm water for 10-15 minutes
- Pare with blade or pumice stone
- Apply acid
- Duct tape over night
- Pare off white, dead skin before applying another layer of salicylic acid
- Repeat process everyday until next round of cryotherapy

Cryotherapy

- Liquid nitrogen
- Cryac vs. cotton applicator
- Pain is good…
  - "if it didn't hurt, you didn't do it long enough"
- "10 second thaw rule"
- Need to a 2 mm rim of normal skin around wart
  - Or else, it will come back as a ring of wart
- Residual hypopigmentation (dark-skin)

Undertreated wart

Overtreated wart

Cryotherapy

- Possible blistering
- Damage to deeper structures – nerves
  - Beware of this when treated warts on fingers
- Multiple treatments Q2-3weeks
- Does not do well on plantar warts

Plantar Warts – Treatment

- If extensive and painful, refer to podiatry or dermatology

- What we can do in derm:
  - Triple acid therapy
    - Phenol/TCA/Pyruvic
  - Candida albicans antigen
    - Intralesional injection
  - Laser surgery

What about Genital warts?

Genital/anal warts

- Liquid nitrogen
- Podofilox (Condylox)
  - Gel or solution for genital warts
  - Gel only for perianal warts
  - AAA BID x 3 consecutive days, off 4 days, repeat cycle x 4 weeks

Genital/anal warts

- Imiquimoid (Aldara)
  - Very expensive medication
    - Pharmacy will only dispense 12 packets at a time
    - Use one packet for 3 applications
  - Apply 3 times weekly at night x 12-16 weeks
  - Mechanism:
    - Immunomodulator
    - Induces IFN, TNF, IL's
- May want to debulk warts with liquid nitrogen or Podofilox

Recognizing Skin Cancers

Basal cell carcinoma

- Most common skin malignancy
- Occurs in areas of chronic sun exposure
- Slow growing and rarely metastasizes
- Locally destructive, disfiguring if neglected

Basal cell carcinoma

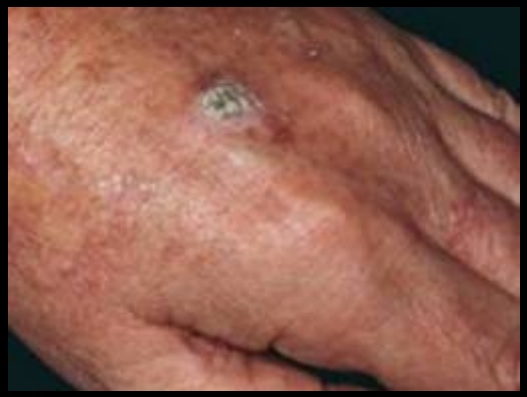
- Pearly, telangiectatic
- Various forms:
  - Nodular
  - Superficial
  - Cystic
  - Morpheaform (scar-like)

Neglected BCC

Squamous Cell Carcinoma

- Second most common skin cancer
- Arises on sun-exposed skin of middle-aged and elderly individuals
- Can metastasize
- Various morphology

Daniel Berg M.D.



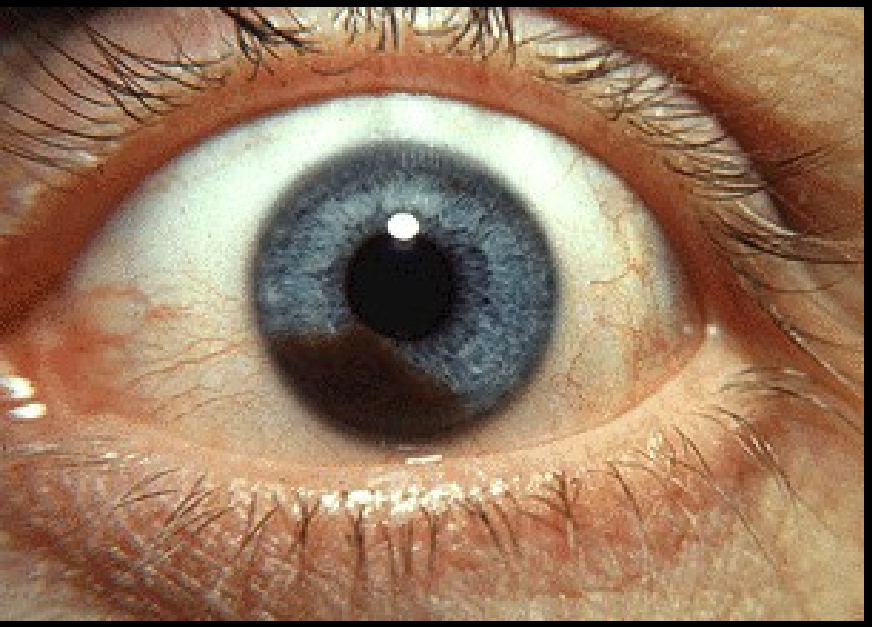
Melanoma

- Malignancy of melanocytes
  - Skin, eyes, GI, brain
- 4% of all skin cancers
- Causes the greatest number of skin cancer–related deaths worldwide
  - Tends to metastasize
- Detect them while they’re thin!
  - Lower mortality

“A”melanotic melanoma

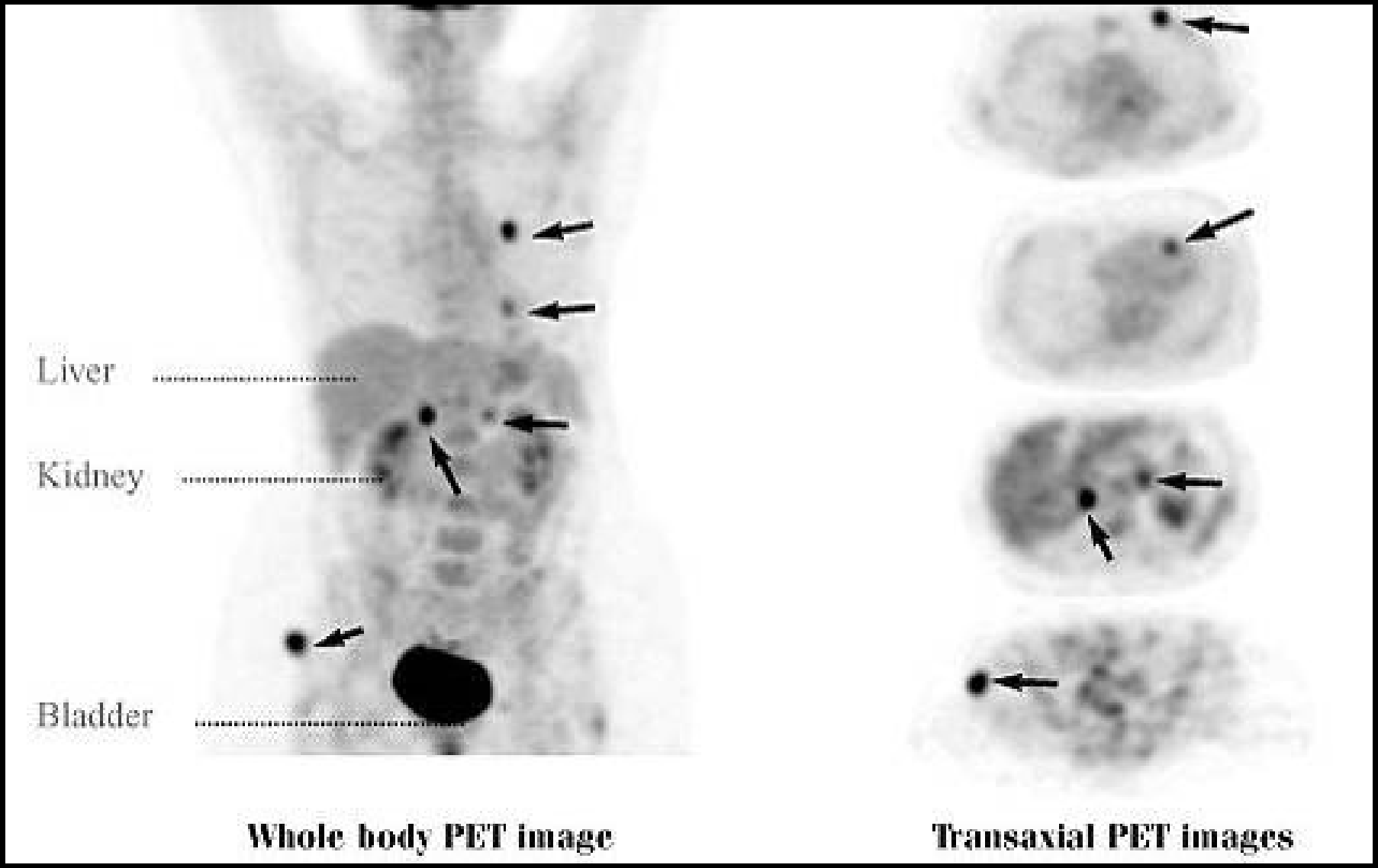
Mimics pyogenic granuloma!!

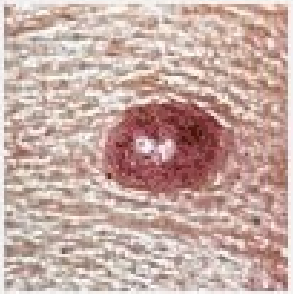
Melanoma in unusual sites



Don’t spray suspicious lesions with liquid nitrogen

Metastatic melanoma



Normal Mole	Melanoma	Sign	Characteristic
		Asymmetry	when half of the mole does not match the other half
		Border	when the border (edges) of the mole are ragged or irregular
		Color	when the color of the mole varies throughout
		Diameter	if the mole's diameter is larger than a pencil's eraser

Photographs Used By Permission: National Cancer Institute

All types of skin cancers

- Refer to Dermatology clinic
  - Persistent lesions
  - Non-healing, ulcerated, eroded
  - Bleeding
  - Changing in color
  - Patient is worried about it
  - ***Don’t be a cowboy!***
- For melanomas
  - Call the clinic for an ASAP consultation

Final words . . .

- Train your people, especially your IDCs

- Respect and be good to your Chief and Corpsmen...and your job will become easier

Good Luck!!